IN THE CLAIMS

1. (previously presented) A method of manufacturing a telescope mirror (21,22) comprising the steps of:

(a) providing a mandrel (10) defining the geometry of the telescope mirror,

(b) depositing a reflective layer (26) on the mandrel surface,

(c) electroforming a mirror body (25) onto the reflective layer (26) by an electrochemical process,

(d) releasing the mirror body (25) with the reflective layer (26) from the mandrel (10),

(e) attaching to the mirror body (25) a supporting structure (23) comprising at least one of a ring geometry (23a) and at least one actuator (23b) for adapting and correcting the geometry of the telescope mirror, and

wherein the electroforming process and the release process are controlled such that the building up of internal mechanism tension within the mirror body is suppressed.

2. (previously presented) The method according to claim 1, wherein the internal mechanism tension is measured during the electroforming process using an additional electroforming sample (18) which is electroformed in parallel or an electronic stress measurement device.

3. (previously presented) The method according the claim 1, further comprising the step of cleaning the mandrel (10) between the method steps (a) and (b).

4. (original) The method according to claim 1, wherein the step of depositing the reflective layer (26) is carried out in a vacuum or electrochemical environment.

5. (original) The method according to claim 1, wherein method step (d) is carried in clean room conditions.

6. (original) The method according to claim 1, wherein the mirror body (25) is electroformed of Ni or Ni-alloy materials.

7. (original) The method according to claim 1, wherein the electroforming step is carried out using an electrochemical liquid having a temperature of between 40°C and 70°C.

8. (previously presented) The method according to claim 1, wherein the releasing step comprises releasing the mirror body (25) from the mandrel (10) such that the mandrel (10) remains unchanged.

9. (previously presented) The method according to claim 1, wherein the supporting structure (23) is attached to the mirror body before releasing the mirror body from the mandrel.

10. (previously presented) The method according to claim 1, wherein the supporting structure (23) is attached to the mirror body after releasing the mirror body from the mandrel.

11. (previously presented) The method according to claim 1, wherein the supporting structure attaching step is carried out under temperature conditions similar to the operating temperature of the telescope mirror.

12. (previously presented) The method according to claim 1, wherein the mandrel comprises one of glass, zerodur, Polymetylmetacrylat (PMMA), composite material and metal.

13. (previously presented) The method according to claim 1, wherein the reflective layer (26) comprises pure gold.

14-30. (canceled)

31. (currently amended) A method of manufacturing a telescope mirror (21,22) comprising the steps of:

(a) providing a mandrel (10) defining the geometry of the telescope mirror,

(b) depositing a reflective layer (26) on the mandrel surface,

(c) electroforming a mirror body (25) onto the reflective layer (26) by an electrochemical process, and

(d) releasing the mirror body (25) with the reflective layer (26) from the mandrel (10) without a supporting structure; and

(e) attaching to the mirror body (25) a supporting structure (23) comprising at least one of a ring geometry (23a) and at least one actuator (23b) for adapting and correcting the geometry of the telescope mirror,

~~(e) attaching the supporting structure (23) to the mirror body (25) after releasing the mirror body from the mandrel, and~~

wherein the electroforming process and the release process are controlled such that the building up of internal mechanism tension within the mirror body is suppressed.

32. (previously presented) The method according to claim 31, wherein the internal mechanism tension is measured during the electroforming process using an additional electroforming sample (18) which is electroformed in parallel or an electronic stress measurement device.

33. (previously presented) The method according to claim 31, wherein the reflective layer (26) comprises pure gold.

34. (previously presented) The method according to claim 31, wherein an optical surface is formed at an interface of the reflective layer (26) with the mandrel (10).

35. (currently amended) The method according to claim 31, wherein the internal mechanism tension is measured during the electroforming process using an additional electroforming sample (18) which is electroformed in parallel or an electronic stress measurement device ~~31, further comprising reusing the mandrel (10)~~.

36. (previously presented) The method according to claim 31, wherein the mirror body (25) is electroformed of Ni or Ni-alloy materials.

37. (previously presented) The method according to claim 1, wherein an optical surface is formed on a side of the reflective layer (26) that is opposite a deposition side of the reflective layer (26).

38. (currently amended) A method of manufacturing a telescope mirror (21,22) comprising the steps of:

(a) providing a mandrel (10) defining the geometry of the telescope mirror,

(b) depositing a reflective layer (26) on the mandrel surface,

(c) electroforming a mirror body (25) onto the reflective layer (26) by an electrochemical process,

(d) releasing the mirror body (25) with the reflective layer (26) from the mandrel (10) before any supporting structure is attached to the mirror body (25) and without changing the mandrel (10) such that the mandrel (10) can be reused to manufacture another telescope mirror[[,]]; and

(e) attaching to the mirror body (25) a supporting structure (23) comprising at least one of a ring geometry (23a) and at least one actuator (23b) for adapting and correcting the geometry of the telescope mirror,

wherein the electroforming process and the release process are controlled such that the building up of internal mechanism tension within the mirror body is suppressed.